Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) An intelligent sensing apparatus, comprising:

at least one sensor element;

a processing unit operatively connected to the sensor element, wherein the processing unit includes at least recording, storing and transmitting processing capabilities;

a power supply operatively connected to the processing unit;

a memory operatively connected to the processing unit and the power supply;

a radio frequency transceiver operatively connected to the processing unit and the power supply; and

an antenna operatively connected to the radio frequency transceiver and the power supply.

2. (Withdrawn) The intelligent sensing apparatus of claim 1, further comprising: at least one connector; and an analog to digital converter connected to the at least one connecter and the processing unit.

3. (Withdrawn) The intelligent sensing apparatus of claim 1, further comprising a visual display connected to the processing unit.

4. (Withdrawn) The intelligent sensing apparatus of claim 1, wherein the at least one sensor element includes sensors for monitoring and recording shipping and operating conditions.

5. (Withdrawn) The-intelligent sensing apparatus of claim 1, wherein the at least one sensor element includes at least one of: a vibration sensor, a speed sensor, a force sensor, a pressure sensor; a tilt sensor; a tamper sensor; a level sensor; a weight sensor; a global positioning satellite sensor; a photo-sensitive vision sensor; and a chemical sensor.

6. (Withdrawn) The intelligent sensing apparatus of claim 1, wherein the processing unit includes signal processing and decision making capabilities for dynamically processing and storing information in accordance with programming selections.

7. (Withdrawn) The intelligent sensing apparatus of claim 1, wherein the radio frequency transceiver operates to transmit information in response to a received query.

8. (Withdrawn) The intelligent sensing apparatus of claim 1, wherein the radio frequency transceiver operates to transmit information continually in a broadcast manner.

9. (Withdrawn) The intelligent sensing apparatus of claim 1, wherein the radio frequency transceiver operates to transmit information in response determined threshold levels regarding information measured by the sensor element, processed by the processing unit, and stored in the memory.

10. (Withdrawn) The intelligent sensing apparatus of claim 1, wherein the power supply comprises a photovoltaic film power supply for deriving power from available light sources.

11. (Withdrawn) The intelligent sensing apparatus of claim 1, wherein the power supply is a condition responsive power supply.

12. (Withdrawn) A method for receiving assets comprising the steps of:

receiving at least one asset at a carrier, wherein the at least one asset includes at least one intelligent asset management and sensing device;

monitoring shipment conditions of the at least one asset during transit to a destination, by the at least one intelligent asset management and sensing device;

arriving at the destination;

retrieving a shipment record from the at least one intelligent asset management and sensing device relating to the monitored shipping conditions of the at least one asset; and

determining, based upon the shipment record, whether to accept or reject the at least one asset.

13. (Withdrawn) The method of claim 12, wherein the at least one intelligent asset management and sensing device includes at least one sensing element for measuring environmental conditions during shipment.

14. (Withdrawn) The method of claim 13, wherein the sensing element includes at least one of: a vibration sensor, a speed sensor, a force sensor, a pressure sensor; a tilt sensor; a tamper sensor; a level sensor; a weight sensor; a global positioning satellite sensor; a photo-sensitive vision sensor; and a chemical sensor.

15. (Withdrawn) The method of claim 12, wherein the at least one intelligent asset management and sensing device further comprises a radio frequency transceiver and an antenna for transmitting asset and shipment information in a wireless manner.

16. (Withdrawn) The method of 12, wherein the step of retrieving a shipment record from the at least one intelligent asset management and sensing device, further comprises the steps of

querying the at least one intelligent asset management and sensing device with a software application residing on a handheld computer having a radio frequency transceiver;

transmitting shipment record information from the at least one intelligent asset management and sensing device to the handheld computer in response to the query; and

displaying the received shipment record information on the handheld computer, for review by a handheld computer operator.

17. (Withdrawn) The method of claim 12, further comprising the step of:

updating an asset management system regarding the determination of whether to accept or reject the at least one asset.

18. (Withdrawn) A method for wirelessly exchanging information, comprising the steps of:

activating a rail signal;

transmitting signal performance and status information from a first intelligent sensing device;

passing a second intelligent sensing device within a predetermined proximity of the first intelligent sensing device;

receiving the transmitted signal performance and status information by the second intelligent sensing device; and

reviewing the received signal performance and status information.

19. (Withdrawn) The method of claim 18, wherein the first intelligent sensing device includes a rail signal sensing element, a radio frequency transceiver, and an antenna.

20. (Withdrawn) The method of claim 18, wherein the second intelligent sensing device includes a radio frequency transceiver and an antenna for receiving transmissions from the first intelligent sensing device.

21. (Withdrawn) The method of claim 18, wherein the second intelligent sensing device is located on a locomotive.

22. (Withdrawn) A system for networking a plurality of intelligent sensing devices, comprising:

a plurality of intelligent sensing devices associated with a plurality of operating environments for monitoring operating conditions and broadcasting monitored conditions information;

at least one station relay operatively coupled to the plurality of intelligent sensing devices for receiving the broadcast monitored conditions information from the plurality of intelligent sensing devices;

a central network controller operatively coupled to the at least one station relay for receiving information from the at least one station relay; and

at least one database operatively connected to the central network controller for storing the monitored conditions information for subsequent dissemination, analysis and review.

23. (Withdrawn) The system of claim 22, wherein each of the plurality of operating environments include a plurality of sub-environments, wherein each of the plurality of sub-environments has a station relay associated therewith.

24. (Withdrawn) The system of claim 23, wherein the plurality of operating environments include a manufacturing environment and a shipping/warehouse environment.

25. (Withdrawn) The system of claim 24, wherein the manufacturing environment further includes a parts manufacturing sub-environment, a material production station sub-environment, and a product assembly station sub-environment.

26. (Withdrawn) The system of claim 22, wherein each of the plurality of intelligent sensing devices further comprise:

at least one sensor element;

a processing unit operatively connected to the sensor element, wherein the processing unit includes at least recording, storing and transmitting processing capabilities;

a power supply operatively connected to the processing unit;

a memory operatively connected to the processing unit and the power supply;

a radio frequency transceiver operatively connected to the processing unit and the power supply; and

an antenna operatively connected to the radio frequency transceiver and the power supply.

27. (Currently Amended) A system for enabling enhanced asset management and tracking capabilities, comprising:

a plurality of electronic asset identification and intelligent sensing devices, wherein each of the plurality of electronic asset identification devices and intelligent sensing devices are affixed to an asset whose location and information are to be managed, wherein each of the plurality of asset identification and intelligent sensing devices includes at least unique identification information relating to the asset to which it is affixed and at least one sensing element for monitoring environmental or [[asset]] operating ~~and asset shipping~~ conditions;

an asset management server computer system for maintaining at least one database containing information regarding the asset identification and intelligent sensing devices and the assets to which they are affixed;

a remote client computer system operatively connected to the asset management server computer system for exchanging information over a computer network; and

at least one interrogation device operatively connected to the remote client computer system, wherein the at least one interrogation device receives information from the plurality of asset identification and intelligent sensing devices and exchanges said information with the remote client computer system.

28. (Original) The system of claim 27, wherein the plurality of electronic asset management devices include radio frequency identification tags.

29. (Original) The system of claim 28, wherein the at least one interrogation device includes a fixed radio frequency identification tag reader.

30. (Original) The system of claim 28, wherein the at least one interrogation device includes a handheld radio frequency identification tag reader.

31. (Original) The system of claim 30, wherein the handheld radio frequency identification tag reader is a handheld computing device.

32. (Original) The system of claim 31, wherein the remote client computer system is the handheld computing device.

33. (Original) The system of claim 27, wherein the asset management server computer system further comprises:

at least one web application server computer system for serving a plurality of interactive web pages relating to the asset identification and intelligent sensing devices and the assets to which they are affixed.

34. (Original) The system of claim 33, further comprising:

at least one hypertext transfer protocol server computer system operatively connected to the web application server computer system; and

at least one authentication server computer system operatively connected to the hypertext transfer protocol server for performing authentication and logon services, wherein the authentication server computer system is further operatively connected to an LDAP directory system for facilitating user login and authentication, wherein information exchanges initiated by the remote client computer system result in a first connection between the remote client computer system and the at least one authentication server computer system.

35. (Original) The system of claim 33, wherein the plurality of interactive web pages include:

a home page;

a login page for receiving user login information;

a main menu page for displaying a plurality of options to users, selection of which a user to view and/or modify the asset management information maintained on the asset management web server computer system;

a project details page for displaying general information regarding asset management information relating to a selected project;

an asset search page for receiving asset search criteria from the user, the submission of which causes the asset management web server computer system to retrieve asset management information matching the submitted search criteria;

an asset search results page for displaying the retrieved asset management information; and

an asset details page for displaying specific asset management information relating to a selected one of the assets displayed on the asst search results page.

36. (Original) The system of claim 27, wherein the remote client computer system is a laptop or notebook style computer system.

37. (Original) The system of claim 27, wherein information is synchronized between the at least one interrogation device and the remote client computer system, such that changes to the information made on the at least one interrogation device are translated to the information maintained on the remote client computer system.

38. (Original) The system of claim 37, wherein information is synchronized between the remote computer system and the asset management server computer system, such that changes to the information made on the remote client computer system are translated to the information maintained on the asset management server computer system.

39. (Original) The system of claim 27, further comprising additional remote client computer systems operatively connected to the asset management server computer system for enabling users to access and modify information contained on the asset management computer system.

40. (Original) The system of claim 27, wherein the at least one interrogation device further comprises:

a computer software application resident thereon, wherein the computer software application incorporates one or more instructions for wirelessly determining the presence of a plurality of electronic asset identification and intelligent sensing devices.

41. (Original) The system of claim 40, wherein the computer software application further comprises:

one or more instructions for determining whether a selected electronic asset identification and intelligent sensing device is within a range of the interrogation device;

one or more instructions for indicating the presence of the selected electronic asset identification and intelligent sensing device to the user; and

one or more instructions for enhancing the indication of the presence of the selected electronic asset identification and intelligent sensing device upon increasing proximity to the selected electronic asset identification device.

42. (Original) The system of claim 40, wherein the computer software application further comprises:

one or more instructions for displaying asset management and monitored environmental or operating conditions information regarding a selected asset, wherein the asset management and monitored environmental or operating conditions information includes an indication regarding whether the selected asset has been confirmed;

an indication that the selected asset has an electronic asset identification and intelligent sensing device affixed thereto;

an indication regarding the presence of the affixed electronic asset identification and intelligent sensing device;

an indication regarding the storage status of the selected asset; and

a graphical display of the monitored environmental or operating conditions information.

43. (Original) The system of claim 40, wherein the computer software application further comprises:

one or more instructions for receiving an asset location area description;

one or more instructions for scanning the asset location area to identify the presence therein of electronic asset identification devices; and

one or more instructions for determining whether identified electronic asset identification devices correspond to information received from the asset management server computer system.

44. (Original) The system of claim 40, wherein the computer software application further comprises:

one or more instructions for synchronizing local asset management and monitored environmental or operating conditions information with asset management and monitored environmental or operating conditions information received from the asset management server computer system for a selected group of assets.

45. (Original) The system of claim 40, wherein the computer software application further comprises:

one or more instructions for receiving a user confirmation that a selected asset has been received; and

one or more instructions for receiving exception information relating to the selected asset.

46. (Original) The system of claim 40, wherein the computer software application further comprises:

one or more instructions for receiving an indication from the user that a selected asset has been rejected in view of received monitored environmental or operating conditions information.

47. (Currently Amended) A method for enabling enhanced asset management and tracking capabilities, comprising:

affixing a plurality of electronic asset identification and intelligent sensing devices to an asset whose location and information are to be managed, wherein the plurality of electronic asset identification and intelligent sensing devices include at least one sensor element, a processing unit operatively connected to the sensor element, wherein the processing unit includes at least recording, storing and transmitting processing capabilities, a power supply operatively connected to the processing unit, a memory operatively connected to the processing unit and the power supply, a radio frequency transceiver operatively connected to the processing unit and the power supply, and an antenna operatively connected to the radio frequency transceiver and the power supply;

programming each of the plurality of asset identification and intelligent sensing devices to include at least unique identification information relating to the asset to which it is affixed;

programming each of the plurality of asset identification and intelligent sensing devices to monitor and store selected environmental or [[asset]] operating ~~and asset shipping~~ conditions;

maintaining at least one database containing information regarding the asset identification and intelligent sensing devices and the assets to which they are affixed on an asset management server computer system;

operatively connecting a remote client computer system to the asset management server computer system for exchanging information over a computer network; and

operatively connecting at least one interrogation device to the remote client computer system, wherein the at least one interrogation device receives information from the plurality of asset identification and intelligent sensing devices and exchanges said information with the remote client computer system.

48. (Original) The method of claim 47, wherein the at least one interrogation device includes a fixed radio frequency identification tag reader.

49. (Original) The method of claim 47, wherein the at least one interrogation device includes a handheld radio frequency identification tag reader.

50. (Original) The method of claim 49, wherein the handheld radio frequency identification tag reader is a handheld computing device.

51. (Original) The method of claim 47, wherein the step maintaining at least one database on an asset management server computer system further comprises:

serving a plurality of interactive web pages relating to the asset identification and intelligent sensing devices and the assets to which they are affixed from at least one web application server computer system.

52. (Original) The method of claim 51, wherein the step of serving a plurality of interactive web pages further comprises the steps of:

displaying a home page; displaying a login page for receiving user login information;

displaying a main menu page for displaying a plurality of options to users, selection of which a user to view and/or modify the asset management information maintained on the asset management web server computer system;

displaying a project details page for displaying general information regarding asset management information relating to a selected project;

displaying an asset search page for receiving asset search criteria from the user, the submission of which causes the asset management web server computer system to retrieve asset management information matching the submitted search criteria;

displaying an asset search results page for displaying the retrieved asset management information; and

displaying an asset details page for displaying specific asset management information relating to a selected one of the assets displayed on the asst search results page.

53. (Original) The method of claim 52, further comprising:

operatively connection at least one authentication server computer system to the web application server computer system for facilitating user login and authentication, wherein the web server application serves different web pages depending upon login information received from the remote client computer system.

54. (Previously Presented) The method of claim 53, further comprising the steps of:

receiving administrative level user login information;

displaying a show report menu page for enabling users to select and create reports of available asset management information;

displaying a synchronize web page for receiving file information for a file to be synchronized;

displaying an asset receipt form web page for receiving a user indication regarding receipt of an asset;

displaying an asset exception annotation web page for receiving information regarding an exception to be added to a selected asset;

displaying an asset exception list page for displaying a listing of asset management exceptions associated with a selected project; and

displaying a resolve asset exception web page, wherein users may indicate that a selected exception has been resolved.

55. (Original) The method of claim 47, wherein the remote client computer system is a laptop or notebook style computer system.

56. (Original) The method of claim 47, further comprising the step of:

synchronizing information between the at least one interrogation device and the remote client computer system, such that changes to the information made on the at least one interrogation device are translated to the information maintained on the remote client computer system.

57. (Original) The method of claim 56, further comprising the step of:

synchronizing information between the remote computer system and the asset management server computer system, such that changes to the information made on the remote client computer system are translated to the information maintained on the asset management server computer system.

58. (Original) The method of claim 47, further comprising the step of:

operatively connecting additional remote client computer systems to the asset management server computer system for enabling users to access and modify information contained on the asset management computer system.

59. (Original) The method of claim 58, wherein users operating the additional remote client computer systems are provided specialized access depending upon login information received by the asset management server computer system.

60. (Original) The method of claim 47, further comprising the step of wirelessly determining, by a computer software application resident on the at least one interrogation device, the presence of a plurality of electronic asset identification and intelligent sensing devices.

61. (Original) The method of claim 60, wherein the computer software application further performs the steps of:

determining whether a selected electronic asset identification device is within a range of the interrogation device;

indicating the presence of the selected electronic asset identification device to the user; and

enhancing the indication of the presence of the selected electronic asset identification device upon increasing proximity to the selected electronic asset identification device.

62. (Original) The method of claim 60, wherein the computer software application further performs the step of:

displaying asset management and monitored environmental or operating conditions information regarding a selected asset, wherein the asset management and monitored environmental or operating conditions information includes an indication regarding whether the selected asset has been confirmed;

an indication that the selected asset has an electronic asset identification and intelligent sensing device affixed thereto;

an indication regarding the presence of the affixed electronic asset identification and intelligent sensing device;

an indication regarding the storage status of the selected asset; and

a graphical display of the monitored environmental or operating conditions information.

63. (Original) The method of claim 60, wherein the computer software application further performs the steps of:

receiving an asset location area description;

scanning the asset location area to identify the presence therein of electronic asset identification and intelligent sensing devices; and

determining whether identified electronic asset identification and intelligent sensing devices correspond to information received from the asset management server computer system.

64. (Original) The method of claim 60, wherein the computer software application further performs the step of:

synchronizing local asset management and monitored environmental or operating conditions information with asset management and monitored environmental or operating conditions information received from the asset management server computer system for a selected group of assets.

65. (Original) The method of claim 60, wherein the computer software application further performs the steps of:

receiving a user confirmation that a selected asset has been received; and

receiving exception information relating to the selected asset.

66. (Original) The system of claim 60, wherein the computer software application further performs the steps of:

receiving an indication from the user that a selected asset has been rejected in view of received monitored environmental or operating conditions information.

67. (Previously Presented) The system of claim 27, wherein the unique identification information comprises an electronic identification code.

68. (Previously Presented) The system of claim 67, wherein the electronic identification code is alphanumeric in character.